PATHOLOGY AND BACTERIOLOGY.

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Further Communications upon the Pathogenesis of Icterus.—EPPINGER (*Beiträge zur Path. Anat. u. z. All. Path.*, 1903, vol. xxxiii. p. 123) in the present communication extends his former observations made upon the purely mechanical forms of icterus to a consideration of other varieties of this affection. The author now states that in the typical cirrhoses of Laennec, certain of the bile capillaries or so-called precapillaries are much constricted or even completely closed by the new connective tissue growth in the portal spaces of the liver. As a result there ensues a dilatation of the bile capillaries with ultimate rupture and escape of bile into the perivascular lymphatic spaces. A study of the liver from cases of phosphorus poisoning, representing the type of toxic jaundice, showed that the trabecular bile ducts were occluded by small thrombi. This led to stasis in the intercellular bile capillaries with subsequent widening and, as in the cirrhotic livers, to rupture of the capillary walls, followed by a pouring out of the bile into the perivascular lymph spaces. In still a third variety of jaundice, "the cyanotic icterus," following upon a chronic congestion, and due principally to cardiac disease, thrombi were again found occluding the bile capillaries. Thus the author explains the icterus accompanying cirrhosis of the liver as well as the jaundice of phosphorus poisoning and cyanosis, upon a mechanical obliteration of the finer bile ducts, with rupture of the ducts and escape of bile into the lymphatics.

The Influence of Nephrectomy upon Absorption (an experimental study from the Rockefeller Institute for Medical Research).—MELTZER and SALANT (*Journal of Medical Research*, 1903, vol. ix. p. 33), in a former study upon the effects of subminimal doses of strychnine upon nephrectomized rabbits, noted that such animals could receive much more than the fatal dose without manifesting any reaction. This result suggested that in nephrectomized animals absorption from the subcutaneous tissues might be decreased. In order to determine the power of absorption in animals in which the kidneys had been removed, rabbits were subjected to double nephrectomy, salt solution was introduced into the peritoneal cavity, and after a varying time the animals were killed, the peritoneal cavity opened, and the amount of fluid absorbed measured. Contrary to expectation, it was found that with an 0.8 per cent. solution of sodium chloride absorption was as good and often better in nephrectomized animals than in normal animals. With a 1.2 per cent. solution of sodium chloride, which is decidedly hypertonic, the difference between absorption in normal and nephrectomized animals was even greater, absorption being decidedly greater for the nephrectomized animals. With 1.5 per cent. solutions, it was frequent to find an increase of fluid in normal rabbits, whereas this never occurred in nephrectomized animals. The increase of absorption for the nephrectomized rabbits continued to manifest itself even when solutions were introduced into the peritoneal cavity about twenty-four hours after nephrectomy. At a period of about forty hours, however, the factor favoring absorption began to diminish. When the fluids were left in the peritoneal cavity for five hours or longer, the rates of absorption in the normal and abnormal animals were about the same.

From these experiments the authors conclude that after nephrectomy in rabbits the osmotic pressure of the blood is increased, and therefore in these animals solutions of sodium chloride are readily absorbed from the peritoneal cavity. The osmotic pressure of the blood of nephrectomized animals appears to correspond to the osmotic pressure of a solution of sodium chloride, having a concentration somewhere between 1.2 per cent. and 1.5 per cent. This increased power of absorption following immediately upon removal of the kidneys seems to explain the absence of œdema after nephrectomy in animals, and after prolonged anuria in human beings. The first effect of anuria, according to the authors, is not an increase of lymph in the tissues, but rather an increase of absorption from the tissues into the circulation, thereby preventing œdema.

Eleven Acute and Eighteen Chronic Cases of Influenza Proved by Bacteriological Examination.—Lord (*Boston Medical and Surgical Journal*, 1902, vol. cxlvii. p. 662) has investigated the cause of cough and expectoration in 100 cases in which sputum examination proved negative for tubercle bacilli. In the sputum of 60 of these patients he found influenza bacilli. The sputum in 29 cases showed the presence of influenza bacilli in such overwhelming numbers that these organisms appeared to be the cause of the cough. In the other 31 instances in which influenza bacilli were found, they were mixed with pneumococci, staphylococci, and streptococci, and were considered as possible secondary invaders. Some of the cases were acute and others chronic, the latter being often of several years' duration. Many of the chronic cases were mistaken for chronic bronchitis, and a few in which paroxysmal dyspnœa was a prominent feature closely resembled asthma. The author concludes that, apart from an epidemic of influenza, infection of the respiratory tract with influenza bacilli is not uncommon.

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